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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,309	09/23/2003	Siu H. Lam	1020.P16535	4677

57035 7590 05/29/2007
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EXAMINER

TO, JENNIFER N

ART UNIT	PAPER NUMBER
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2195

MAIL DATE	DELIVERY MODE
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05/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/669,309	LAM, SIU H.	
	Examiner	Art Unit	
	Jennifer N. To	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-21 are presenting for examination.
2. The abstract of the disclosure is objected because it fails to disclose what is new in the art of which the invention pertains. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (specification, page 6, line 1, page 7, line 11). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9, and 12-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The claim language in the following claims is not clearly understood:

- i. as per claim 1, line 5, it is uncertain whether "a processor" being selected referred to "a processor of the plurality of processors" or it is another processor. Line 5, it is uncertain how is the step of "selecting a processor based on said processor task values" performed (i.e. based on the highest processor value, lowest processor value or a predetermined processor values for that particular task type).
- ii. as per claim 2, lines 1-2, it is not clearly understood what is meant by "said processor value represents a number of other task types affected by assigning said task to a processor" (i.e. the processor values is the current load values for a processor that going to process that particular task type or the processor values is the maximum load that a processor capable of process that particular task type on top of other task types being assigned to that processor or task values reflecting the amount of processor resources that the task required).

- iii. as per claims 12-13, and 15-16, they have the same deficiencies as claims 1-2. Appropriate corrections are required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 9, 16-17, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Shaffer (U.S. Patent No. 7203943).

8. As per claim 1, Shaffer teaches the invention as claim including a method to assign tasks, comprising:

receiving a request to execute a task on one of a plurality of processors (col. 5, lines 48-53; col. 7, lines 3-9; receiving a request to execute a task on one of a plurality of computer platform 148, wherein each of the computer platform 148 comprises one or more processor);

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determining a task type for said task (abstract; col. 5, line 50 through col. 6, line 14; col. 7, lines 5-9; the task type can be assigned or already associated with the task in the header information of the task, hence the task type for said task can be determined);

retrieving a processor task value of said task type for each processor (abstract; col. 2, lines 38-49; col. 7, lines 9-26);

selecting a processor based on said processor task values (abstract; col. 7, lines 23-50); and

assigning said task to said selected processor (abstract; col. 7, lines 48-50).

9. As per claim 2, Shaffer teaches that wherein said processor task value represents a number of other task types affected by assigning said task to a processor (col. 5, lines 21-47; col. 7, lines 9-26).

10. As per claim 3, Shaffer further teaches updating said processor task values for each task type and each processor (abstract, lines 10-15; col. 2, lines 50-60).

11. As per claim 9, Shaffer teaches that wherein said selecting comprises: comparing said processor task values for said processors; and selecting a processor having a highest processor task value (col. 7, lines 23-50).

12. As per claims 16-17, and 21, they are rejected for the same reason as claims 1-3, and 9 above.

13. Claims 10-12, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu (U.S. Patent No. 6104721).

14. As per claim 10, Hsu teaches the invention as claim including a system, comprising:

- a call terminal to originate information (abstract);

- a first antenna to couple to said call terminal to send said information over a communications channel (fig. 1; col. 4, line 60 through col. 5, line 47);

- a second antenna to receive said information over said communications channel (fig. 1; col. 4, line 60 through col. 5, line 47);

- a gateway to couple to said second antenna and process said information using a processing module, said processing module further comprising a task scheduler and array of processors (col. 2, lines 37-42).

15. As per claim 11, Hsu teaches that wherein said task scheduler receives a request to execute a task by one of said array of processors, and assigns said task to a processor based on a processor task value (col. 2, lines 40-42; col. 3, lines 38-48; col. 6, lines 12-32).

16. As per claim 12, Hsu teaches that wherein said processor task value represents a number of other task types affected by assigning said task to said processor (col. 17, lines 24-35).

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17. As per claim 13, Hsu teaches the invention as claim including an apparatus, comprising:

an array of processors (col. 5, lines 60-63); and

a task scheduler to couple to said array of processors, said task scheduler to receive a first input signal to indicate a request to assign a task to a processor for execution, said task scheduler to select a processor from said array of processors using a processor task value for each processor in said array of processors, and generate a first output signal to assign said task to said selected processor (abstract; col. 2, lines 37-43; col. 3, lines 39-46; col. 6, lines 12-39; col. 9, line 20 through col. 10, line 47; col. 11, lines 8-15).

18. As per claim 14, Hsu teaches that wherein said array of processors comprises an array of digital signal processors (col. 5, lines 60-63).

19. As per claim 15, Hsu teaches that wherein said processor task value represents a number of other task types affected by assigning said task to said processor (col. 17, lines 24-35).

Allowable Subject Matter

20. Claims 4-8, and 18-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Benhase et al. (U.S. Patent No. 7178147), Woft et al. (U.S. Patent no. 5437032), Harchol-Balter et al. (U.S. Patent No. 6223205), Robertazzi et al. (U.S. Patent No. 6370560), and Ozden et al. (U.S. Patent No. 5964829) teach method and system for allocating/assigning processor resources to different types of tasks.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer N. To whose telephone number is (571) 272-7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.


23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer N. To
Examiner
Art Unit 2195



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